JOINT COUNCIL NOTES

JOINT COUNCIL ON FOOD AND AGRICULTURAL SCIENCES

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On April 14, the Joint Council Executive Committee met with Secretary of Agriculture John R. Block to discuss priority issues facing the food and agriculture science and education system (below). At the conclusion of the meeting, the Secretary presented a Certificate of Appreciation to John S. Robins for three years of outstanding leadership as Cochairman of the Joint Council (right).

The quarterly meeting of the Joint Council on Food and Agricultural Sciences was held April 15-16 in Washington, D.C. Following are highlights from the meeting.

1981-82 Agenda for the Joint Council

The Joint Council has chosen Water, Agricultural Productivity, and Energy as priority issues for emphasis in 1981.

The Ad Hoc Committee on Energy is in place and functioning; the Council voted to establish a standing Committee on Water; and the Council will commission a "white paper" documenting the most important elements of agricultural productivity, constraints on those elements, and recommendations for action to enhance productivity in the future.

The Joint Council has also asked Regional Councils and National Committees for Higher Education, Research, and Extension to place the following issues on their agendas for

discussion in 1982: Technology Transfer; Human Resources for Agricultural Research, Extension and Teaching; Budgets; and Post-Harvest Technology, Marketing, and Export.

Planning and Coordination Discussion

Chairmen or representatives of Regional Councils and National Committees participated in a discussion about roles of the various entities in the Joint Council structure for planning and coordination and possibilities for coordination in the Council's three priority issue areas: water, agricultural productivity, and energy.

Gilbert Porter: Chairman, Northeast Regional Council

Porter reported that the Northeast Regional Council has selected energy as its first focus area for improving planning and coordination efforts. Water is at the lower range of the high priorities of the Northeast Region. In agricultural productivity, the Northeast Regional Research Committee has steering committees covering 10 commodity groups that account for 90 percent of the scientific staff-year effort in the region.

The Northeast Regional Council sees that the regional structure for planning and coordination is a unique mechanism for mutual support across teaching, research, and extension. It will proceed with its original operational plan, with three regional committees for teaching, research, and extension operating under the aegis of the Regional Council.

Signe Betsinger: Chairman, North Central Regional Council

Betsinger noted that coordination in energy programs in the North Central Region is moving in a positive direction with much activity within and between extension, research, and teaching.

In the North Central Region, improved coordination has been demonstrated in agricultural productivity in the recent past (particularly in integrated pest management). There is a concern for adequacy of funding for research and extension efforts in productivity.

Examination of the North Central Region's approach to water problems is needed. Coordination is difficult in this area, with, for example, 16 different agencies, boards, and commissions each administering water programs in Minnesota alone.

Mark Buchanan: Cochairman, National Agricultural Research Committee

Buchanan reported that the National Agricultural Research Committee (NARC) will continue the regional/national projections process with the cooperation of Science and Education staff and research administrators throughout the country (October 1981 final report). Also, each Regional Agricultural Research Committee will be asked to identify 10-15 regional research program areas needing additional emphasis.

In the future, NARC hopes to focus on determining basic research requirements for increasing agricultural productivity and in achieving greater dialogue with the USDA in the budget process.

Lark Carter: Secretary, National Higher Education Committee; and Sumner Griffin: Member, NHEC

Carter reported that the NHEC had held its initial meeting on April 9, 1981, and sees that its mission is to provide an organized voice for the diverse interests of higher education in food and agriculture. NHEC has formed a Workgroup on a Food and Agricultural Education Information System and a Workgroup on the National Assessment of Curricula in the Food and Agricultural Sciences.

Griffin stated that, in addition, the NHEC is concerned about the lack of budget support for higher education in the food and agricultural sciences; the need for greater coordination among teaching, research, and extension; and various issues related to the development of adequate manpower for the food and agricultural sciences.

L. F. Amburn: Chairman, National Extension Committee

Amburn reported that the National Extension Committee (NEC) held its initial meeting April 10, 1981. Three subcommittees were appointed to accomplish the following: (1) develop a statement for the Joint Council on computer technology, programs and use; (2) audit and inventory recent changes in energy funding, including successes and failures of the past and strategies for the future; (3) assess adequacy of existing research base for current and future extension programming. (Target areas are: public policy education, energy, computer technology, water.)

Discussion

Joint Council discussion following these presentations indicated a need for further delineation of the roles of the various entities in the Joint Council structure for planning and coordination and continued dialogue between them.

A need for increased future-oriented organization within the Council's planning structure was noted, so that adequate time for regional input is allowed.

Regional Council and National Committee chairmen also emphasized that budget and staff support would greatly enhance their functioning.

Water Is Council's Top Priority in 1981

Both the Joint Council and Users Advisory Board have identified the area of Water Resources for Agriculture as their top priority of 1981. The Council invited a number of speakers to give them an overview of this issue:

Water for Agriculture - Frank Thomas, U. S. Water Resources Council

- Thomas noted changing trends in thinking, philosophy, and management concerning water, with increased emphasis being placed on cost recovery of Federal investment (through user charges, etc.); greater non-Federal participation; and a switch from emphasis on demand to supply augmentation.

- The 1975 National Water Assessment shows that the United States has an ample supply of water from both surface and underground sources. However, local or regional inadequacy of supply is resulting from uneven distribution of precipitation, poor quality of water, or economic-social-environmental constraints.

- In 1975, agriculture accounted for 48 percent of total water withdrawals and 83 percent of total consumption. By the year 1000 these percentages will be 51 and 70 percent, respectively.

- Regionally, agriculture is the dominant water user west of the 100th meridian, in the Lower Mississippi Valley, and in Florida. Irrigation accounts for more than 90 percent of all agricultural water use.

- Patterns of surface and groundwater use closely follow irrigation patterns. Severe surface water problems exist in the Rio Grande, lower Colorado, and southern California regions. Severe groundwater problems exist in the southern Arizona, Ogallala, Georgia, Great Basin, and lower Colorado regions.

State of Research in Agricultural Water Resources - Marvin E. Jensen, National Research Program Leader, Water Management, SEA-AR

- Jensen explained that diminishing water supplies for agriculture and degradation of water quality have increased the amount of attention focused on water research programs in the recent past.

- A February 1981 National Workshop sponsored by 10 societies and numerous agencies on national soil and water resources priorities identified the following major water research needs: (1) developing conservation technology; (2) managing water in stressed environments; (3) protecting water quality; (4) improving and implementing conservation policy; and (5) assessing soil and water resources. Seven of the nine panels also identified water resources research priorities.

- Some emerging technical issues that the Joint Council should consider are: (1) diminishing water supplies for agriculture, especially in arid and semiarid areas (our current production level is dependent on groundwater mining); (2) sharply increasing costs for energy to lift water from its original source and provide pressure to apply it with sprinklers; (3) increasing competition for available water supplies, particularly for energy production and instream uses.

Stateside Research in Agricultural Water Resources - Doyle Matthews, Dean, College of Agriculture, Utah State University

- Matthews explained that, through USDA-SEA, Congress appropriates funds by formula to States willing to coordinate planning, priority setting, and research project development.

- He believes that in no researchable area is the Federal-State cooperative approach more vital than in the area of water. The highest stakes in the West will be played over water. In the arid West, water is a premium commodity and will be subject to increasing pressures in the future. Even the more humid sections of the United States are beginning to feel the pressures of development on finite water supplies.

- The water supply in any area is finite, and research is basically directed toward providing data on which resource allocations can be made.

- The top six regional research priorities in the West include: (1) legal/institutional aspects of allocation of newly quantified water supplies and reallocation of existing supplies; (2) conjunctive management of surface and groundwaters; (3) contamination of ground and surface waters by heavy metals, organics and other toxic materials; (4) processes of salt pickup in surface waters and movement through channels and reservoirs for use in more effective water management and methods of salinity control; (5) effects of mining activity (metals, fossil fuels and others) on surface runoff, water quality, and groundwater movement and quality; (6) use of brackish and saline waters in the cultivation and processing of agricultural crops for synthetic rubber production.

Technology Transfer Programs in Water Resources - Paul Fischbach, Extension Irrigation Specialist, University of Nebraska

- Fischbach cited the following problems related to water for agriculture: (a) There are approximately 61 million acres of irrigated farmland in the U. S., and on-farm water application efficiency is about 50 percent; (b) Soil erosion by water and subsequent sedimentation is a major water quality problem; (c) The concentration of nitrate-nitrogen has greatly increased in the groundwater reservoir; (d) In Nebraska, pumping plants are using 30% more energy than is needed.

- To increase on-farm irrigated water application efficiency, Fischbach suggested the following technology transfer programs: (a) automation of surface irrigation (with a reuse system), (b) use of proper pressure for center pivot systems, and (c) improved irrigation scheduling.

- To reduce soil erosion, Fischbach recommended use of conservation tillage systems; and to improve irrigation pumping plant efficiency he recommended

education and training of irrigators in testing, evaluating, and adjusting the pumping plant.

Emerging Technical and Policy Issues - Melvin Cotner, Director, Natural Resource Economics Division, ESS

- Cotner reported that technical issues concerning water focus mainly on the effective and efficient use of existing supplies. These issues encompass conveyance and storage practices, application technology, irrigation scheduling, cropping systems and on-farm as well as watershed or river basin systems to manage nutrient use, water use and pollutants.

- While considerable data exist on water issues and problems, still little information exists on the investments by the private sector in the types and kinds of water-use practices. Additional information is needed on water use, especially groundwater.

- Policy issues relate primarily to programs that deal with social and economic dimensions of water use, especially issues relating to the long-term interests of society. These issues include water pricing and conservation, groundwater management, conjunctive use of surface and groundwater, and competing water uses.

- Inadequate water research planning and coordination are concerns expressed by the General Accounting Office and others. The Water Resources Council and the Office of Science and Technology Policy could facilitate planning coordination. How should the Joint Council be involved?

Program Structure

George Sledge, chairman, Program Structure Study Group, reported that progress is being made in the following areas: (1) evaluating more fully the information requirements of various users and refining proposed program categories (including definition and information content) to reflect these requirements; (2) reexamining specific data characteristic requirements of the Joint Council (per February Joint Council meeting comments); (3) examining specific data contents of separate information systems already in existence (Program and Resources Information System; Current Research Information System), those being modified (Extension Management Information System), and those proposed to be established (Food and Agriculture Education Information System) to determine data already available and what additional data will be required of the separate information systems; (4) developing more fully the concept of an integrated information system and the cost of its implementation.

The Program Structure Study Group will submit a report to the Council at its July meeting that will include a plan of what needs to be done, by whom, and estimated cost.

Ad Hoc Committee on Energy

J. P. Jordan, chairman, reported that, by mid-May, the Ad Hoc Committee on Energy will prepare materials for the Secretary of Agriculture describing programs that are now, or need to be in place to meet agriculture's requirement for energy.

A chief concern of this committee is USDA's position relative to agricultural energy programs housed within the Department of Energy, as such programs are dismantled or moved.

The committee is also concerned that the various versions of the Farm Bill do not address energy. They will recommend that the Secretary correct this situation through the amendment process.

Participation of Women in the Food and Agricultural Sciences

Jane Coulter, chairman, reported that the Study Group on the Participation of Women in the Food and Agricultural Sciences had completed its charge of "identifying issues related to the participation of women in the food and agricultural sciences which are within the purview of the Joint Council and on which the Council can assist the partners in the science and education system to find solutions."

Marva Jett, SEA/EEO, who served as staff resource to the group, shared statistical fact sheets showing marked underrepresentation of women in the federally employed science and engineering labor force, and significant salary differentials.

Coulter reported that issues of concern cited by the study group were primarily in the areas of enrollment and employment, and delineated the committee's priorities in these two areas.

The study group made the following final recommendations: (1) that a standing committee on women's issues be established by the Joint Council or the name and function of the standing Committee on Minority Affairs be amended to reflect concern for women in the food and agricultural sciences comparable to the concern expressed for minorities in the food and agricultural sciences; (2) that enrollment and employment issues recommended by the study group should serve as a basis for action by the Joint Council to improve the participation of women in the food and agricultural sciences; (3) that the Joint Council should continue to assert the need for graduate fellowships to the Department and to the Congress for the purpose of recruiting and training the professional expertise (particularly among women and minorities) needed to meet the employment needs of the food and agricultural system.

The Council voted to refer the report to the Joint Council Committee on Minority Affairs to determine: (1) where this particular issue fits in its overall list of priorities and when they anticipate addressing these concerns; (2) if there are additional constituency groups that should be added to the committee in order to deal

effectively with these issues; and (3) views of the committee on action the Joint Council might take to alleviate some of the problems identified.

Title XIV

John Stovall, Executive Director, compared the various versions of the Farm Bill that have been introduced in the House and Senate (Wampler - H.R. 2561; Helms - S. 884; Helms - S. 943 -- administration bill; Huddleston - S. 994).

All bills extend the Joint Council through 1986 and require that the Council have not fewer than 25 members. The administration, the Helms and Wampler bills require that at least 50 percent of the Council's membership be from land-grant institutions and that planning should be accomplished through "existing organizations and agencies whenever possible."

The Wampler bill specifies that at least two of the other representatives are from "other colleges having a demonstrated capacity to carry out food and agricultural research, extension, or teaching."

The Wampler bill requires the Joint Council produce at least three reports annually: (1) June 30 - Priorities in Research, Extension, Teaching, including funding recommendations; (2) November 30 - Annual Report; (3) June 30 - Five-Year Plan (required every two years).

All bills provide for a full time Executive Director for the Joint Council and Users Advisory Board and a full time professional staff of not more than five persons and exempt the Council from the Federal Advisory Committee Act.

A comparative summary of all bills is available.

Council Thanks Robins; Morrison

The Joint Council expressed hearty thanks and a Certificate of Appreciation to John S. Robins for outstanding leadership as Cochairman of the Joint Council for the past three years, and to Richard Morrison, for effectively representing the 1890 Institutions.

Next Meeting

The next meeting of the Council will be held July 15-17 at the Key Bridge Marriott Hotel in Rosslyn, Virginia.